Logix Academy

Docker Commands Handout

Common Docker Commands

Command	Explanation
docker version	Displays Docker client and server version information
docker info	Shows detailed information about Docker installation
docker login	Log in to a Docker registry
docker logout	Log out from a Docker registry

Docker Image Commands

Command	Explanation
docker images	Lists all images available locally
docker pull <image:tag>	Downloads an image from a Docker registry
docker push <image:tag>	Uploads an image to a Docker registry
docker build -t <name:tag> .	Builds an image using the Dockerfile located in the current directory, tagging it with the provided name and tag
docker rmi <image_id>	Removes an image by its ID
docker tag <image:tag> <new_tag>	Adds a new tag to an existing image
docker images -f reference='*:<tag>'	Lists images matching a specific tag

Container Management Commands

Command	Explanation
`docker ps`	Lists running containers
`docker ps -a`	Lists all containers (running and exited)
`docker ps -f status=running`	List all running containers
`docker ps -f status=exited`	List all containers with status of exited
`docker run <image>`	Runs a container from a specified image
`docker run -d <image>`	Runs a container in detached (background) mode
`docker run -it <image>`	Runs a container in interactive mode
`docker start <container_id>`	Starts an existing stopped container
`docker stop <container_id>`	Stops a running container
`docker restart <container_id>`	Restarts a container
`docker rm <container_id>`	Removes a stopped container
`docker exec -it <container_id> <command>`	Runs a command inside a running container interactively
`docker logs <container_id>`	Fetches logs from a container
`docker rm -f $(docker ps -aq)`	Forcefully stop and remove ALL containers

Multi-Stage Build Commands

Command	Explanation
`docker build -t <name:tag> -f <Dockerfile> .`	Builds an image using a specific Dockerfile
`FROM <image> AS <alias> (Dockerfile)`	Defines an intermediate stage with an alias
`COPY --from=<alias> <src> <dest> (Dockerfile)`	Copies files from one stage to another in a multi-stage build

Docker Network Commands

Command	Explanation
`docker network ls`	Lists all Docker networks
`docker network create <network_name>`	Creates a new Docker network
`docker network inspect <network_name>`	Shows detailed information about a network
`docker network connect <network> <container>`	Connects a container to a network
`docker network disconnect <network> <container>`	Disconnects a container from a network
`docker network rm <network_name>`	Removes a Docker network

Docker Compose Commands

Command	Explanation
`docker compose up`	Builds and starts containers defined in compose file
`docker compose up -d`	Runs containers in detached mode
`docker compose down`	Stops and removes containers and networks
`docker compose build`	Builds images defined in the compose file
`docker compose logs`	Displays logs of containers managed by Docker Compose
`docker compose ps`	Lists containers managed by Docker Compose
`docker compose exec <service> <cmd>`	Executes a command inside a running container
`docker compose restart`	Restarts containers managed by Docker Compose